

CLAIM AMENDMENTS

IN THE CLAIMS

This listing of the claims will replace all prior versions, and listing, of claims in the application or previous response to office action:

1. **(Currently Amended)** A valve body comprising a needle and a cartridge with a recess which takes in the needle and which comprises on one of its ends a seat plate that comprises a needle seat for the needle, wherein the needle further comprises a seat part with a sealing area that rests on the needle seat if it is pushed against the needle seat, wherein the seat part comprises a cavity radially inwards from the sealing area and covering in axial extension the sealing area, wherein the cavity makes the seat part more flexible in the sealing area as compared to an identical seat part without a cavity, such that ~~the~~ ends of the seat part around the cavity flex inwardly due to micrometric deformations of the seat part when engaged in the needle seat, and wherein the cavity is ~~either empty or~~ at least partially filled with a material affixed to an inner wall of the cavity, the material having ~~of~~ a stiffness less than a stiffness of the seat part in order to achieve a desired flexibility of the seat part, whereby a seal is formed between the seat part and the needle seat when the seat part is engaged in the needle seat.

2. **(Previously Presented)** A valve body according to claim 1, wherein the cavity is formed as a blind hole.

3. **(Previously Presented)** A valve body according to claim 1, wherein the material of a suitable stiffness comprises a filler part.

4. **(Previously Presented)** A valve body according to claim 3, wherein the filler part protrudes into a sack volume formed in the seat plate.

5. **(Previously Presented)** A valve body according to claim 3, wherein the filler part consists of plastics.

6. (Previously Presented) A valve body according to claim 1, wherein the cavity is formed in an annular shape.

7. (Previously Presented) A valve body according to claim 6, wherein part of the seat part protrudes into a sack volume formed in the seat plate.

8. (Previously Presented) A valve body according to claim 1, wherein the seat part is spherically shaped.

9. (Previously Presented) A valve body according to claim 8, wherein the spherically shaped seat part of the needle is formed by a ball with a hole passing through the ball into which a part of the needle is taken in and which forms together with the needle the cavity.

10. **(Currently Amended)** A fluid injector comprising a housing, an actuator unit and a valve body, wherein the valve body comprising a needle and a cartridge with a recess which takes in the needle and which comprises on one of its ends a seat plate that comprises a needle seat for the needle, wherein the needle further comprises a seat part with a sealing area that rests on the needle seat if it is pushed against the needle seat, wherein the seat part comprises a cavity radially inwards from the sealing area and covering in axial extension the sealing area, wherein the cavity makes the seat part more flexible in the sealing area as compared to an identical seat part without a cavity, such that ~~the~~ ends of the seat part around the cavity flex inwardly due to micrometric deformations of the seat part when engaged in the needle seat, and wherein the cavity is either completely empty or at least partially filled with a material affixed to an inner wall of the cavity, the material having ~~of~~ a stiffness less than a stiffness of the seat part in order to achieve a desired flexibility of the seat part, whereby a seal is formed between the seat part and the needle seat when the seat part is engaged in the needle seat.

11. **(Currently Amended)** A valve body comprising a needle movably arranged within a cartridge with a recess, wherein the cartridge comprises on one of its ends a seat plate that comprises a needle seat, wherein the needle further comprises a tip with a sealing area resting on the needle seat when pushed against the needle seat, wherein the tip comprises a cavity radially inwards from the sealing area, and wherein the cavity is **either completely empty ~~or filled with a material of a stiffness less than a stiffness of the needle tip~~** in order to achieve a desired flexibility of the tip such that ~~the~~ ends of the needle tip around the cavity flex inwardly due to micrometric deformations of the seat part when engaged in the needle seat, whereby a seal is formed between the seat part and the needle seat when the seat part is engaged in the needle seat.

12. (Previously Presented) A valve body according to claim 11, wherein the cavity is formed as a blind hole.

13. **Cancelled.**

14. **Cancelled.**

15. **Cancelled.**

16. (Previously Presented) A valve body according to claim 11, wherein the cavity has an annular shape.

17. (Previously Presented) A valve body according to claim 16, wherein part of the tip protrudes into a sack volume formed in the seat plate.

18. (Previously Presented) A valve body according to claim 11, wherein the tip is spherically shaped.

19. (Previously Presented) A valve body according to claim 18, wherein the spherically shaped tip of the needle is formed by a ball comprising a hole into which a part of the needle is inserted, wherein the ball together with the needle define the cavity.

20. **(Currently Amended)** A fluid injector comprising a housing, an actuator unit and a valve body, wherein the valve body comprising a needle movably arranged within a cartridge with a recess, wherein the cartridge comprises on one of its ends a seat plate that comprises a needle seat, wherein the needle further comprises a tip with a sealing area resting on the needle seat when pushed against the needle seat, wherein the tip comprises a cavity radially inwards from the sealing area, and wherein the cavity is ~~either empty or~~ **at least partially** filled with a material **affixed to an inner wall of the cavity, the material having** ~~of~~ a suitable stiffness in order to achieve a desired flexibility of the tip and to enable micrometric deformations of the seat part when engaged in the needle seat, whereby a seal is formed between the seat part and the needle seat when the seat part is engaged in the needle seat.